

INTRODUCTION

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Growing interest in light rail transit represents a new direction in the search for improved urban mobility. In recent years, alternatives to the private automobile have tended to be expensive and advanced in their technology. Worldwide inflation and frequent deficiencies in development have limited the application of such alternatives. Meanwhile, the problems of congestion, pollution, and energy extravagance have intensified.

For these reasons, approaches, such as light rail transit, which are more evolutionary, have come to the fore. Light rail transit is evolutionary in that its basic technology has seen widespread use for a number of years. At the same time, it has not been locked into a given design framework. Upgrading, expansion, and modernization currently are taking place on more than 80 systems throughout the world. And in the remainder of this decade, a number of totally new systems will begin operations.

Even though worldwide developmental activity is more extensive for light rail transit than it is for any other fixed guideway mode, light rail transit still labors under the burden of being considered by many professionals and lay persons as the streetcar in contemporary dress. Foundations of light rail transit lie in the streetcar mode, but progress from that technology has been so pervasive that a totally new dimension in public transport has been achieved. New vehicles, rights-of-way, fare-collection systems, and service levels are essential elements of a unique mode that demonstrates high potential for attracting riders from the automobile. At the same time, there is no imperative to simultaneously apply all elements over every segment of a particular system. (This characteristic is another evolutionary aspect of light rail transit.)

The objective of the National Conference on Light Rail Transit and this Special Report has been to put forward the basic characteristics of light rail transit and the techniques of applying it to improve transportation and the quality of urban life. Topics were selected to form a program that would serve as a comprehensive introduction for those who participate in any aspect of urban transportation whether it be political, managerial, or technical.

The opening session established the rationale for considering light rail transit from among the several modes demonstrating a potential for improved transportation. The papers in this session also presented a memorable succession of worldwide developments in light rail transit. The papers in the second session, which was on system concept, described specific characteristics that give light rail transit a logical place in the public transportation spectrum. How light rail transit coordinates with other modes was an important aspect of this session.

Physical and operating characteristics were discussed in the third session. Both fixed facilities and vehicles received extensive coverage. The fourth session examined economics, including topics on cost and revenue potential. The beginnings of

a method for selecting an optimum urban transport system that uses various modes were formulated.

The fifth and final session placed the potential of light rail transit in the institutional context of contemporary American society. Numerous issues were raised. Some answers were suggested, but the main thrust of the session was that tangible effort must be made in the United States to emulate light rail transit development in Canada and Europe if the true potential of this mode is to be determined.

Throughout the conference there were several recurring themes. One was that no one should suggest light rail transit as a panacea for the urban transportation dilemma. As is the case with all things, light rail transit has limitations, and establishing expectations that cannot be met would create only more waste and delay in the search for workable solutions. Another frequently repeated theme was that extensive research, development, and demonstration are unnecessary for the practical application of light rail transit. Because the need to improve public transportation is so urgent, this makes light rail transit a good candidate for early development.

The dominant characteristic of our urban society is change. In such an environment, the intrinsic features of light rail transit favor its sustained usefulness. Worldwide, it is continually being modified to meet new economic, demographic, and technological conditions. Moreover, in contrast to a number of other transit modes that are confined to a fixed state of the art or program of development, the prerogative for upgrading and expansion remains with the community.

The Conference Committee hopes that this conference will contribute to a wider understanding of light rail transit. If that is achieved, the future course of urban transportation will be determined on a sounder basis.